

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10 (canceled).

11. (Currently Amended) A method for determining a mass flow rate of a fluid flowing in a pipe, comprising the ~~step~~ steps of:

producing vortices, especially Karman vortices, in the flowing fluid by means of a bluff body around which the fluid flows, the bluff body having at least two separation edges, and determining a repetition frequency with which the vortices are produced;

producing, on the basis of the determined repetition frequency, a flow rate measurement value, which represents a volume flow rate or a flow velocity;

local registering of a first pressure, p_1 , acting in the flowing fluid at a first measurement point, which is located, with reference to the flow direction, by the two separation edges of the bluff body or downstream from at least one of the separation edges; and

local registering of a second pressure, p_2 , acting in the flowing fluid at a second measurement point separated from the first measurement point in the flow direction, ~~whereas:~~ wherein, by the action of the generated vortices, at least one of the registered pressures, p_1 , p_2 , changes periodically at least with the repetition frequency; and

~~by action of the generated vortices, at least one of the registered pressures p_1 , and p_2 changes periodically at least with the repetition frequency, producing,~~ using the registered first pressure, p_1 , and the registered second pressure, p_2 , a pressure measurement value that ~~is produced which~~ represents an average dynamic pressure acting, averaged over time, at least partly in the flow direction, as well as

producing, using the pressure measurement value and the flow rate measurement value, a mass flow rate measurement value is produced representing the a mass flow rate measurement value representing the mass flow.

12. (Currently Amended) The method as claimed in claim ~~[[10]]~~ 11, wherein:
the repetition frequency, with which the vortices are produced, is determined on
the basis of at least one of the registered pressures p_1 , p_2 .

13. (Currently Amended) The method as claimed in claim ~~[[10]]~~ 11, wherein:
at least one of the measurement points is arranged at the bluff body or inside of
the same.

14. (Currently Amended) The method as claimed in claim ~~[[10]]~~ 11, wherein:
a pressure difference between the two locally registered pressures is determined
for producing the pressure measurement value.

15. (Previously presented) The method as claimed in claim 13, wherein:
a differential pressure sensor, especially one arranged within the bluff body, is
exposed, especially simultaneously, to the first and second pressures, p_1 , p_2 , for
registering the pressure difference.

16. (Previously presented) The method as claimed in claim 14, wherein:
a pressure difference signal is derived from the locally registered pressures, p_1 ,
 p_2 , to represent the pressure difference.

17. (Previously presented) The method as claimed in claim 16, wherein:
the pressure difference signal is digitized for producing the pressure
measurement value.

18. (Previously presented) The method as claimed in claim 16, wherein:
the pressure measurement value and/or flow rate measurement value is/are
determined on the basis of a spectral analysis, especially a digital spectral analysis, of
the pressure difference signal.

19. (Previously presented) The method as claimed in claim 11, wherein:
one of the locally registered pressures p_1 , p_2 is a total pressure acting in the flow direction and/or a static pressure acting in the fluid.

20. (Currently Amended) The method as claimed in claim 11, ~~where~~ wherein:
a sensor element in the form of an oscillating body arranged within, or downstream from, the bluff body is used for determining the pressure difference.

21. (New) A method for determining a viscosity of a fluid flowing in a pipe, which method includes the steps of:

producing vortices, especially Karman vortices, in the flowing fluid by means of a bluff body around which the fluid flows, the bluff body having at least two separation edges;

local registering of a first pressure, p_1 , acting in the flowing fluid at a first measurement point, which is located, with reference to the flow direction, by the two separation edges of the bluff body or downstream from at least one of the separation edges;

local registering of a second pressure, p_2 , acting in the flowing fluid at a second measurement point separated from the first measurement point in the flow direction, wherein, by action of the generated vortices, at least one of the registered pressures p_1 , p_2 , changes periodically at least with a repetition frequency with which the vortices are produced; and

producing, using the registered first pressure, p_1 , and the registered second pressure, p_2 , a pressure measurement value that represents an average dynamic pressure acting, averaged over time, at least partly in the flow direction, as well as

producing, using the pressure measurement value, a viscosity measurement value representing the viscosity to be measured.

22. (New) The method as claimed in claim 21, further comprising steps of:
oscillating a sensor element, which is disposed in the pipe downstream from the separation edges, with said repetition frequency;

determining a deflection of said sensor element and producing a deflection

measurement value, which represents a instantaneous deflection of said sensor element; and

using said deflection measurement value to determine said viscosity measurement value.

23. (New) The method as claimed in claim 22, further comprising a step of:
dividing said deflection measurement value by said pressure measurement value.

24. (New) The method as claimed in claim 22, wherein:
the deflection measurement value represents a maximum deflection of said sensor element.